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09/551,399	04/17/2000	Christopher J. Chase	03493.86913	1414

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EXAMINER

HOM, SHICK C

ART UNIT PAPER NUMBER

2666

DATE MAILED: 03/13/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/551,399

Applicant(s)

CHASE ET AL.

Examiner

Shick C Hom

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 04 November 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-79 is/are pending in the application.
- 4a) Of the above claim(s) 1,3,4,11-20,23-30,33,36,38-51,53,56-73 and 76-79 is/are withdrawn from consideration
- 5) ☒ Claim(s) 32,34,35 and 37 is/are allowed.
- 6) ☒ Claim(s) 2,5-10,21,22,31,52,54,55,74 and 75 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

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**DETAILED ACTION**

***Response to Arguments***

1. Applicant's arguments filed 11-04-02 have been fully considered but they are not persuasive.
2. Applicant's arguments with respect to claims 2, 5-10, 21, 22, 31, 32, 34, 35, 37, 52, 54, 55, 74, and 75 have been considered but are moot in view of the new ground(s) of rejection.
3. Upon reconsideration, the finality of the previous office action has been withdrawn.

***Specification***

4. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

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***Claim Objections***

5. Claim 5 is objected to because of the following informalities: In claim 5 lines 1-2, the words "a virtual private network" seem to refer back to "a virtual private network" recited in claim 2 line 8. If this is true, it is suggested changing "a virtual private network" to ---the virtual private network---. Appropriate correction is required.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly

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owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103<sup>®</sup> and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 2, 5-9, 21, 31, and 52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Abensour et al. in view of Takahashi et al.

Abensour et al. disclose nearly all the subject matter now claimed. Note Fig. 3 which shows the ATM cell layout, Figs. 5(A-D) which show the user data field, and col. 7 lines 6-45 which recite the various services available via ATM wherein the terminal adapter determines from the received frame from the frame relay data terminal equipment FR DTE the destination DTE (from the data link connection identifier DLCI) the type of service requested (from the FECN, BECN and DE bits--bits 2, 3, and 4 of address octet 2, 3, or 4 depending upon the address field size) and upon receiving the frame, examines the payload type PT bits and determines, based upon their respective values, the type of service required by the FR DTE and then makes the determination based upon the coding table (Table 1) clearly

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anticipate the ATM fast packet network having the step of receiving frame relay data packets having user data in the user data field wherein the user data comprises service category data and the step of discriminating between the service categories, e.g. AAL1 and AAL5 service categories, based on the user data as in claims 2, 21-22, the data packets being frame relay data packet as in claim 55, selecting service category responsive to header information as in claim 54. Further, col. 5 lines 4-15 which recite the ATM cell layout for the user-network interface (UNI), specified in CCITT Recommendation I.361 including the Routing Field comprising a virtual path identifier (VPI) and a virtual channel identifier (VCI) and col. 5 line 51 to col. 6 line 11 which recite the private interface whereby the physical transmission system for the private user-network interface being based on the Synchronous Optical Network (SONET) standards for the transport of ATM cells clearly anticipate the step of routing over a virtual private network responsive to the service categories as in claims 2, 5, 22, 31, and routing over a closed user group as in claim 6. Col. 2 lines 39-53 which recite the Frame Relay DTE being able to send data, image, voice, or video traffics across the ATM network via the FR/ATM terminal adapter clearly anticipate the voice and video data as in claims 8 and 9,

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respectively. Col. 1 lines 51-56 which recite Frame Relay being implemented as a permanent virtual circuit (PVC) service clearly anticipate receiving frame relay packets over a permanent virtual circuit at a node as in claim 22. Col. 6 lines 29-37 which recite the Frame Formatting element and the Mapping element utilized to map the data received from the Frame Relay side through the Frame Formatting element to data to be transmitted through the ATM side through the ATM physical layer element, and vice versa whereby the Mapping element performs address mapping function for DLCI to VPI/VCI addresses clearly anticipate the address translation circuitry for translating DLCI into ATM address representing the virtual networks as in claims 31, 52, and computing DLCI as in claims 74, 75.

Abensour et al. did not recite the step of switching frame relay packets responsive to the user data as in claims 2, 74, 75, the ATM switch as in claim 31, switching packet as in claim 54, and multicast data as in claim 7.

Takahashi et al. teach that it is known to provide a switch system using the ATM (Asynchronous Transfer Mode) switch-board for high speed packet communication system including segmenting communication data to relay-transfer them in a network as in a frame relay or cell relay and, more particularly, to a multicast

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connection status confirmation method and apparatus for confirming connection statuses of fixed connection in multicast services as set forth at col. 1 lines 6-22 in the field of digital and multiplex communications for the purpose of multi-connection management for switch system which clearly anticipate switching frame relay packets responsive to the user data as in claim 2, the atm switch as in claim 31, switching packet as in claim 54, and the multicast data as in claim 7.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the step of switching frame relay packets responsive to the user data, the atm switch, switching packet, and multicast data as taught by Takahashi et al. to the system of Abensour et al. because Takahashi et al. teach providing the desirable added features of multi-connection management for switch system in Abensour et al.

8. Claims 10, 22, and 54-55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Abensour et al. in view of Takahashi et al. as applied to claim 2, 5-9, 21, 31, and 52 above, and further in view of Focsaneanu et al.



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Abensour et al. in view of Takahashi et al. did not recite the Internet protocol (IP) packet as in claims 10, 54, and generating ATM address based on a data field other than the DLCI within the frame relay packets as in claim 22.

Focsaneanu et al. teach that it is known to provide a controller for analyzing the contents of a data connection request to identify the service requested and upon identification of the type of service requested, the controller performs address conversion as set forth at col. 8 lines 6-21 in the field of digital and multiplex communications for the purpose of providing flexible and adaptable multiservice access to the network and col. 10 line 57 to col. 11 line 2 which recite the network interfaces include frame relay and ATM TCP/IP clearly anticipate the Internet protocol (IP) packet as in claims 10, 54, and generating ATM address based on a data field other than the DLCI within the frame relay packets as in claim 22.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the Internet protocol (IP) packet and generating ATM address based on a data field other than the DLCI within the frame relay packets as taught by Focsaneanu et al. to the system of Abensour et al. in view of Takahashi et al. because Focsaneanu et al. teach the

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desirable advantage of a flexible and adaptable multiservice access to the network and said flexible and adaptable multiservice access being desirable to achieve more efficient system operation in Abensour et al. in view of Takahashi et al.

9. Claims 74 and 75 are rejected under 35 U.S.C. 103(a) as being unpatentable over Abensour et al. in view of Takahashi et al. as applied to claims 2, 5-9, 21, 31, and 52 above, and further in view of Acharya et al.

Abensour et al. in view of Takahashi et al. did not recite the dynamically computed DLCI and the telnet application and FTP application as in claims 74 and 75, respectively.

The applicant teaches that it is known to use a DLCI which is dynamically computed, i.e. coded into the header of the frame relay frame 914 packet for use by the DLCI switch as shown in Fig. 2 in the field of digital and multiplex communications for the purpose of switching the data packet to a plurality of destinations which clearly anticipate the dynamically computed DLCI. Further, Acharya et al. teach that it is known to provide a protocol specially designed for integrated services Internet, which enables applications to set up reservations over the

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network for various services required such as for traditional data applications like FTP and Telnet where correct data delivery is more important than timeliness as set forth at col. 18 lines 11-20 in the field of digital and multiplex communications for the purpose of providing an efficient, flexible, and scalable method for transporting IP over ATM networks which clearly anticipate the telnet application and FTP application as in claims 74 and 75.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the telnet application and FTP application as taught by Acharya et al. to the system of Abensour et al. in view of Takahashi et al. because Acharya et al. teach the desirable advantage of using an efficient, flexible, and scalable method for transporting IP over ATM networks and said efficient, flexible, and scalable method being desirable to achieve more efficient system operation in Abensour et al. in view of Takahashi et al.

***Allowable Subject Matter***

10. Claims 32, 34, 35, and 37 are allowed.

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**Conclusion**

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Allan et al. disclose a mechanism for multiplexing ATM AAL5 virtual circuits over Ethernet.

12. **Any response to this nonfinal action should be mailed to:**

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

**or faxed to:**

(703) 872-9314, (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington. VA., Sixth Floor (2600 Receptionist at (703) 305-4750).

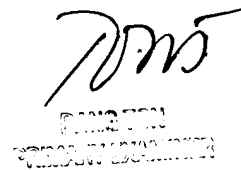
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shick Hom whose telephone number is (703) 305-4742. The examiner's regular

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work schedule is Monday to Friday from 8:00 am to 5:30 pm EST and out of office on alternate Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao, can be reached at (703) 308-5463.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

A handwritten signature, possibly "DMS", is written over a rectangular official stamp. The stamp contains the words "EXAMINER" and "TECHNOLOGY CENTER" in a bold, sans-serif font, with some smaller, less legible text below.

SH

March 6, 2003